

**Notice of Allowability**

Application No.

09/685,196

Examiner

Edith M. Chang

Applicant(s)

MILLER ET AL.

Art Unit

2637

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response filed Dec 13, 2005.
2. ☒ The allowed claim(s) is/are 1-6, 8-20 and 22-30.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|   | 9. <input type="checkbox"/> Other _____   |

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

In the Specification:

From page 1, line 5, to page 2, line 23, in the replaced specification adding U.S. Patent numbers to the applications that have the patents issued:

"Application Serial No. 09/563,292 filed May 3, 2000, entitled PLANAR ULTRA WIDE BAND ANTENNA WITH INTEGRATED ELECTRONICS (Attorney Docket No. 10188-006-8)" has been changed to "Application Serial No. 09/563,292 filed May 3, 2000, entitled PLANAR ULTRA WIDE BAND ANTENNA WITH INTEGRATED ELECTRONICS (Attorney Docket No. 10188-006-8) now U.S. Patent 6,351,246";

"Application Serial No. 09/685,203 filed October 10, 2000, entitled SYSTEM AND METHOD FOR BASEBAND REMOVAL OF NARROWBAND INTERFERENCE IN ULTRA SIDEBAND SIGNALS (Attorney Docket No. 194381US8)" has been changed to "Application Serial No. 09/685,203 filed October 10, 2000, entitled SYSTEM AND METHOD FOR BASEBAND REMOVAL OF NARROWBAND INTERFERENCE IN ULTRA SIDEBAND SIGNALS (Attorney Docket No. 194381US8) now U.S. Patent 6,834,073";

“Application Serial No. 09/685,197 filed October 10, 2000, entitled MODE CONTROLLER FOR SIGNAL ACQUISITION AND TRACKING IN AN ULTRA WIDEBAND COMMUNICATION SYSTEM (Attorney Docket No. 194588US8)” has been changed to “Application Serial No. 09/685,197 filed October 10, 2000, entitled MODE CONTROLLER FOR SIGNAL ACQUISITION AND TRACKING IN AN ULTRA WIDEBAND COMMUNICATION SYSTEM (Attorney Docket No. 194588US8) now U.S. patent 6,965,630”;

“Application Serial No. 09/684,400 filed October 10, 2000, entitled ULTRA WIDEBAND COMMUNICATION SYSTEM, METHOD, AND DEVICE WITH LOW NOISE PULSE FORMATION (Attorney Docket No. 195268US8)” has been changed to “Application Serial No. 09/684,400 filed October 10, 2000, entitled ULTRA WIDEBAND COMMUNICATION SYSTEM, METHOD, AND DEVICE WITH LOW NOISE PULSE FORMATION (Attorney Docket No. 195268US8) now U.S. patent 6,735,238”;

“Application Serial No. 09/685,195 filed October 10, 2000, entitled ULTRA WIDEBANDTH SYSTEM AND METHOD FOR FAST SYNCHRONIZATION (Attorney Docket No. 195269US8)” has been changed to “Application Serial No. 09/685,195 filed October 10, 2000, entitled ULTRA WIDEBANDTH SYSTEM AND METHOD FOR FAST SYNCHRONIZATION (Attorney Docket No. 195269US8) now U.S. patent 6,925,108”;

“Application Serial No. 09/684,401 filed October 10, 2000, entitled ULTRA WIDEBANDTH SYSTEM AND METHOD FOR FAST SYNCHRONIZATION USING SUB CODE SPINS (Attorney Docket No. 195272US8)” has been changed to “Application Serial No. 09/684,401 filed October 10, 2000, entitled ULTRA

WIDEBANDTH SYSTEM AND METHOD FOR FAST SYNCHRONIZATION USING  
SUB CODE SPINS (Attorney Docket No. 195272US8) now U.S. patent 6,967,993”;

“Application Serial No. 09/685,199 filed October 10, 2000, entitled A LOW  
POWER, HIGH RESOLUTION TIMING GENERATOR FOR ULTRA-WIDE  
BANDWIDTH COMMUNICATION SYSTEMS (Attorney Docket No. 195670US8)” has  
been changed to “Application Serial No. 09/685,199 filed October 10, 2000, entitled A  
LOW POWER, HIGH RESOLUTION TIMING GENERATOR FOR ULTRA-WIDE  
BANDWIDTH COMMUNICATION SYSTEMS (Attorney Docket No. 195670US8) now  
U.S. patent 6,975,665”;

“Application Serial No. 09/685,201 filed October 10, 2000, entitled  
CARRIERLESS ULTRA SIDEBAND WIRELESS SIGNALS FOR CONVEYING  
APPLICATION DATA (Attorney Docket No. 196108US8)” has been changed to  
“Application Serial No. 09/685,201 filed October 10, 2000, entitled CARRIERLESS  
ULTRA SIDEBAND WIRELESS SIGNALS FOR CONVEYING APPLICATION DATA  
(Attorney Docket No. 196108US8) now U.S. patent 6,505,032”;

“Application Serial No. 09/684,782 filed October 10, 2000, entitled ULTRA  
WIDEBAND COMMUNICATION SYSTEM, METHOD, AND DEVICE WITH LOW  
NOISE RECEPTION (Attorney Docket No. 197024US8)” has been changed to  
“Application Serial No. 09/684,782 filed October 10, 2000, entitled ULTRA WIDEBAND  
COMMUNICATION SYSTEM, METHOD, AND DEVICE WITH LOW NOISE  
RECEPTION (Attorney Docket No. 197024US8) now U.S. patent 6,859,506”;

“Application Serial No. 09/685,200 filed October 10, 2000, entitled LEAKAGE NULLING RECEIVER CORRELATOR STRUCTURE AND METHOD FOR ULTRA WIDE BANDWIDTH COMMUNICATION SYSTEM (Attorney Docket No. 1541.1001/GMG)” has been changed to “Application Serial No. 09/685,200 filed October 10, 2000, entitled LEAKAGE NULLING RECEIVER CORRELATOR STRUCTURE AND METHOD FOR ULTRA WIDE BANDWIDTH COMMUNICATION SYSTEM (Attorney Docket No. 1541.1001/GMG) now U.S. patent 6,937,646”.

On page 22, lines 10-22, adding U.S. Patent number to the application that has the patent issued in the replaced specification:

“Application Serial No. 09/685,195 filed October 10, 2000, entitled ULTRA WIDEBANDTH SYSTEM AND METHOD FOR FAST SYNCHRONIZATION (Attorney Docket No. 195269US8)” has been changed to “Application Serial No. 09/685,195 filed October 10, 2000, entitled ULTRA WIDEBANDTH SYSTEM AND METHOD FOR FAST SYNCHRONIZATION (Attorney Docket No. 195269US8) now U.S. patent 6,925,108”;

On page 30, lines 2-9, adding U.S. Patent number to the application that has the patent issued in the replaced specification:

“Application Serial No. 09/685,197 filed October 10, 2000, entitled MODE CONTROLLER FOR SIGNAL ACQUISITION AND TRACKING IN AN ULTRA WIDEBAND COMMUNICATION SYSTEM (Attorney Docket No. 194588US8)” has been changed to “Application Serial No. 09/685,197 filed October 10, 2000, entitled MODE

CONTROLLER FOR SIGNAL ACQUISITION AND TRACKING IN AN ULTRA  
WIDEBAND COMMUNICATION SYSTEM (Attorney Docket No. 194588US8) now U.S.  
patent 6,965,630".

***Allowable Subject Matter***

3. Claims 1-6, 8-20 and 22-30 are allowed.

4. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach or suggest, alone or in a combination, among other things, at least a system for identifying a phase of an incoming ultrawide bandwidth (UWB) signal and its method as a whole, the combination of elements and features, which includes a selector to compare the first correlation function of the first detecting arm receiving incoming pulses of the UWB signal and generating first local pulses, and the second correlation function of the second detecting arm receiving incoming pulses of the UWB signal and generating second local pulses, and to select one of the first and second detecting arms based on the first and second correlation functions.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M. Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay K. Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang  
January 3, 2006

  
**KHAI TRAN**  
**PRIMARY EXAMINER**